

## NATIONAL TRANSPORTATION SAFETY BOARD

## OFFICE OF MARINE SAFETY

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Monday, February 19, 2001

**INTERVIEW OF STS1 McGIBONEY (continued)**

## INTERVIEWING PANEL:

National Transportation Safety Board

TOM ROTH-ROFFY, Investigator  
 BILL WOODY  
 BARRY STRAUCH

United States Navy

CDR JOHN CACCIVIO, SUBPAC  
 LT DOUG HEDRICK, SUBPAC  
 LCDR RICH SANTOMAURO

United States Coast Guard

LTJG KEN KUSANO  
 LT CHARLIE JOHNSON

[TRANSCRIPT PREPARED FROM A TAPE RECORDING.]

## P R O C E E D I N G S

MR. WOODY: Petty Officer McGiboney, we had a chance to go through our notes and we realized there are a couple of areas of information, maybe more than that, that we would like to revisit and see if we couldn't get some information.

CDR CACCIVIO: Before we --

MR. WOODY: Yes?

CDR CACCIVIO: Oh, I'm sorry. I would like to just lay all this stuff in front of him. At some point, I would like to tell him what it is, so he knows, because none of this data was available to him on the boat during the event.

MR. WOODY: What I was going to do was ask him a couple questions to take him back.

CDR CACCIVIO: Okay.

MR. WOODY: Then I think later on in the interview, you are welcome to do it. When your turn comes, it will be a good time for it.

CDR CACCIVIO: No. I don't want to do it that way. I want him to know what is in front of him so if people ask him questions, he knows he can refer to it.

MR. WOODY: Well, could he hold off? Because I would like to ask him a couple questions about if he can reconstruct it and tell us about the visit to the Sonar and any reports he might have made to the CO, and then kind of work at it like that to page 2.

Would that work?

CDR CACCIVIO: Sure.

MR. WOODY: Petty Officer McGiboney, can you think back and recount to us about the executive officer's visit to Sonar, what information you passed to him, what he did, how he acquired the information.

STS1 MCGIBONEY: I don't know if you know exactly what point he came in. He came in prior to a baffle clear, to where he could watch the baffle clear and our ascent to PD. I don't remember having too much dialogue with the executive officer. I don't think there was really any information for a contact picture that I gave right to him. I think he was just kind of in there watching. He wasn't asking anything that I can recall.

MR. WOODY: All right. If information had been passed to him, you would have been the one passing to him, or would the other people on the stacks talk to him?

STS1 MCGIBONEY: Well, he could have asked them, but I would have been relating anything that would have been pertinent or that somebody would have asked me would probably have been passed to him.

MR. WOODY: Okay. But you don't remember passing any verbal information to him?

STS1 MCGIBONEY: No, I don't.

MR. WOODY: I guess it is time to refine the question a bit. You are saying you don't remember

1 passing any information to him, period.  
2 STS1 McGIBONEY: Right.  
3 MR. WOODY: Not that you don't remember the  
4 information, just that you don't remember passing it.  
5 STS1 McGIBONEY: I don't remember passing  
6 any.  
7 MR. WOODY: About how long was he in Sonar?  
8 STS1 McGIBONEY: I would say it was just -- I  
9 think he came in just before the baffle clear. I think  
10 he left just after periscope depth, once we got out  
11 there.  
12 MR. WOODY: And left when, please?  
13 STS1 McGIBONEY: After we got to periscope  
14 depth, is when I believe he left.  
15 MR. WOODY: You think he was in until  
16 periscope depth.  
17 STS1 McGIBONEY: I think so.  
18 PANEL MEMBER: Would you repeat that, please?  
19 MR. WOODY: I believe he came in prior to the  
20 baffle clear, and I believe he left just after  
21 periscope depth.  
22 PANEL MEMBER: Thank you.  
23 MR. WOODY: Can you remember what information  
24 you passed to CONN, to the OOD, or the Captain?  
25 STS1 McGIBONEY: I didn't pass anything  
26 directly to the Captain at all. The OOD, I believe  
27 someone there was a S-10, and that was the guy I was  
28 concerned about because of the bearing rate that we  
29 were being shown. I had asked Petty Officer Reyes, who  
30 was near the curtain, to go out and check the ranges to  
31 see where this guy was because I felt that he was  
32 close.  
33 MR. WOODY: S-10, he was close.  
34 STS1 McGIBONEY: I believed he was close,  
35 just by the bearing rate that I had. I asked him to go  
36 out there and check on what they had.  
37 MR. WOODY: At Fire Control?  
38 STS1 McGIBONEY: Right. I don't know if he  
39 went and asked the officer of the deck. I am not sure  
40 exactly who.  
41 MR. WOODY: What he did.  
42 STS1 McGIBONEY: He came back in and told me  
43 that he was opening contact.  
44 MR. WOODY: That S-10 was opening contact.  
45 STS1 McGIBONEY: Correct.  
46 MR. WOODY: Had he come in and passed through  
47 CPA?  
48 STS1 McGIBONEY: S-10? Yes.  
49 MR. WOODY: S-10 did. Do you have, ah  
50 reflection back, regarding what the bearing drift was  
51 that you were thinking at the time on S12/13?  
52 STS1 McGIBONEY: Both of them seemed to be  
53 drifting to the left.  
54 MR. WOODY: Did you get any kind of feedback?  
55 Do you customarily get any feedback from Fire Control  
56 about bearing drift?

1 STS1 MCGIBONEY: The only time we really get  
2 anything from Fire Control is if I go out there, or  
3 somebody goes out there, and says, "This is what we  
4 have on Sierra-whatever number; What do you guys have?"  
5 kind of like what I did with 10, send somebody out  
6 there to find out, to get a feel for range on him.

7 MR. WOODY: Tom, I am about ready to pass to  
8 the next person here. Do you have something you want  
9 to ask?

10 What we are doing, we are asking Petty  
11 Officer McGiboney to think back and try to reconstruct  
12 his memory, and then later, Commander Caccivio will  
13 show some printouts and go through those with him. It  
14 could be a change of pace.

15 CDR CACCIVIO: I don't intend to go through  
16 these diagrams, unless somebody has something they  
17 specifically want me to ask. I just think it would be  
18 prudent at this point, if I am going to put these  
19 documents out there, to explain to Petty Officer  
20 McGiboney what they were, because they were unavailable  
21 to him while he was underway, but if you would like to  
22 use them as a tool, then it would help that he knows  
23 what is in front of him. That is all.

24 MR. ROTH-ROFFY: Does anybody have any  
25 preference for asking questions before these are  
26 provided?

27 STS1 MCGIBONEY: May I see what that is at  
28 the top? I have got the bottom one. I have never  
29 actually seen this.

30 MR. ROTH-ROFFY: Okay.

31 STS1 MCGIBONEY: Can I detail what I have got  
32 on here?

33 CDR CACCIVIO: Sure. This is the same thing  
34 we have been over about three days ago. Basically,  
35 this is a reconstructed time-range plot. So it shows  
36 time for S13. It shows the actual Fire Control  
37 solutions, each one of the pink dots.

38 So this is what Fire Control solutions showed  
39 their range to be at these times, and this is actually  
40 -- the black line you see going through the middle is  
41 actually a reconstructed range. You can see the time  
42 he was initially gained down to the time of collision.

43 This is what the Fire Control operator -- so the only  
44 thing here is the Slogger data, if you want it, and  
45 this is a reconstructed view, if you need to look at  
46 the picture.

47 MR. WOODY: Okay, those are all the questions  
48 I had.

49 LT HEDRICK: This is Lieutenant Hedrick, and  
50 I apologize. One of these might have been asked  
51 previously.

52 You said the XO was in there for the baffle  
53 clear and periscope depth, yet you are pretty sure that  
54 he didn't have any conversations with him about sonar  
55 contacts or anything.

56 How did you know the XO was there for the

1       baffle clear?  
2               STS1 MCGIBONEY: He stood between me and  
3       Petty Officer Reyes.  
4               LT HEDRICK: Right, but I mean, how do you  
5       know that was his purpose?  
6               STS1 MCGIBONEY: I don't know.  
7               LT HEDRICK: Was it apparent to you that he  
8       was doing some type of analysis or monitoring of sonar?  
9               STS1 MCGIBONEY: Not that I was aware of.  
10              LT HEDRICK: Not that you were aware of. So  
11       as far as you know, he was just standing there.  
12              STS1 MCGIBONEY: I have had people come in,  
13       different lieutenants to learn to watch. I don't think  
14       you can learn to watch for that, but.  
15              LT HEDRICK: Was he paying attention to  
16       sonar?  
17              STS1 MCGIBONEY: I believe so.  
18              LT HEDRICK: You believe so.  
19              STS1 MCGIBONEY: I mean, he was headed  
20       towards the stack.  
21              LT HEDRICK: Okay. Who were your stack  
22       operators?  
23              STS1 MCGIBONEY: There was Petty Officer  
24       Bowie and Seaman Rhodes.  
25              STS1 MCGIBONEY: And Seaman Rhodes, do you  
26       know what his qualification status is?  
27              STS1 MCGIBONEY: He is not qualified for  
28       broadband.  
29              LT HEDRICK: Is he qualified in any other  
30       watches in Sonar?  
31              STS1 MCGIBONEY: No. That is the Junior  
32       Watch Station.  
33              LT HEDRICK: Okay. Did he have an over-  
34       instruction watch?  
35              STS1 MCGIBONEY: Not a guy on the watchbill.  
36       I asked Petty Officer Reyes if he could go over there  
37       and kind of help out with the watch.  
38              LT HEDRICK: And that was just during the  
39       periscope depth time.  
40              STS1 MCGIBONEY: For the baffle clear, yes,  
41       sir.  
42              LT HEDRICK: Do you normally have under-  
43       instruction watches standing watch?  
44              STS1 MCGIBONEY: That has been done on the  
45       boat numerous times in Sonar.  
46              LT HEDRICK: Without an over-instruction?  
47              STS1 MCGIBONEY: Yes, sir. When we have  
48       three or four people in the shack, with the arrays out.  
49       You don't always have the people to be able to support  
50       an over-instruction when you cut through the water, but  
51       it has been done before.  
52              LT HEDRICK: Okay. That is all I have.  
53       Thank you very much.  
54              LT JOHNSON: This is Lieutenant Johnson with  
55       Coast Guard.  
56              Do you remember the commanding officer coming

1 into Sonar at any time prior to the ascent to periscope  
2 depth?  
3 STS1 MCGIBONEY: I don't believe so, sir.  
4 LT JOHNSON: Because I have a copy of the  
5 notes made on the interview with him and he talks about  
6 being in Sonar during preps for periscope depth.  
7 STS1 MCGIBONEY: I remember the XO standing  
8 beside me and Petty Officer Reyes near the curtain. I  
9 don't know if he popped the curtain open and popped in.  
10 I am not sure. I don't remember him coming in.  
11 LT JOHNSON: Was the XO in Sonar during the  
12 excursion down to 400 feet prior to the MBT blow?  
13 STS1 MCGIBONEY: I don't know at what point  
14 he left. I can't remember if he was there before we  
15 blew or not. At some point there, he left, but I am  
16 not sure when.  
17 LT JOHNSON: What information -- when you  
18 report a bearing drift to the officer of the deck, what  
19 information do you use to make that report?  
20 STS1 MCGIBONEY: The broadband display  
21 itself.  
22 LT JOHNSON: Do you at any time refer to your  
23 logs for historical data that might tell you?  
24 STS1 MCGIBONEY: When we log at about 15  
25 minutes, we get a little bit better visual on the  
26 display. I mean, you can refer back to it, but most of  
27 the time you can kind of look on there and you will see  
28 he had got a left-bearing drift or a right-bearing  
29 drift.  
30 LT JOHNSON: Didn't you report a 12 or 13  
31 with left-bearing drifts?  
32 STS1 MCGIBONEY: I don't remember making any  
33 report as of that.  
34 LT JOHNSON: Did they request any information  
35 regarding the bearing drift?  
36 STS1 MCGIBONEY: I don't remember. I don't  
37 remember them calling in over the open mike, asking.  
38 LT JOHNSON: Do you remember, at any time, if  
39 the fire controlman popped his head into Sonar and  
40 tried to solicit any data from you or compare notes, or  
41 anything like that?  
42 STS1 MCGIBONEY: Like I said, the only one  
43 that we had asked about, and that was to go get  
44 information on S-10 because of bearing rate.  
45 LT JOHNSON: Is there a Petty Officer Brown  
46 assigned to your vessel, do you know?  
47 STS1 MCGIBONEY: Yes, there is.  
48 LT JOHNSON: Was he on watch during all of  
49 this?  
50 STS1 MCGIBONEY: I don't think so. I think  
51 he was out in Control, but I don't know if he was  
52 assigned watch.  
53 LT JOHNSON: Because he is referred to by  
54 Lieutenant Coen. The Lieutenant asked Petty Officer  
55 Brown to keep an eye on the contact picture, to give  
56 him some assistance for that.

1                   You are not aware of him being there?  
2                   STS1 MCGIBONEY: I know he has been up here,  
3 but I don't know what position he was doing out there,  
4 if he was doing a position. I just know he was in  
5 Control.  
6                   LT JOHNSON: Have you had a chance to, in  
7 talking with anyone else about this accident -- I see  
8 you have a printout right in front of you right there.  
9 Any idea how we got to that? Any idea, any factors  
10 that could have caused you guys not to be tracking that  
11 guy on sonar, to recognize --  
12                   STS1 MCGIBONEY: If that is him, we would  
13 have been tracking -- well, with the exception of,  
14 probably, the baffles, putting in the baffles, we would  
15 have held him the whole time.  
16                   LT JOHNSON: I want to make sure I  
17 understand. When you -- and I know you have done this  
18 before. I have been sitting here looking at my notes  
19 from your first interview.  
20                   When you give an estimated range to a contact  
21 that you get off your passive to the officer of the  
22 deck, what factors are you taking into account? What  
23 is leading you to that conclusion, just one more time  
24 for me?  
25                   STS1 MCGIBONEY: One of them how strong he is  
26 coming into your DES. If he is filling up the display  
27 in all DES, generically he is going to be closer than  
28 somebody showing up in three or four DES.  
29                   LT JOHNSON: Sure.  
30                   STS1 MCGIBONEY: There is a near-field effect  
31 where if a contact is close enough, he starts eating up  
32 more than just his bearings of sound. He eats up a lot  
33 of bearings of sound. I am watching -- or, I am  
34 listening to my 009 acoustical interceptor for either  
35 fish finders, bottom sounders, anything that is  
36 emitting an active signal.  
37                   LT JOHNSON: Sure.  
38                   STS1 MCGIBONEY: I am also looking for high-  
39 bearing rate traces drawing the wrong way, or just  
40 high-bearing rate traces, which that was S-10,  
41 originally.  
42                   LT JOHNSON: Let me ask you this, and please  
43 realize that I am not a sonar expert. So if this  
44 sounds really stupid, let me duck my head before you  
45 laugh at me.  
46                   Is it possible that an increase in speed on a  
47 vessel could actually make it quieter? In other words,  
48 a slow, chugging vessel, one maybe doing five or six  
49 knots, you know, with a laboring engine that is shoo,  
50 shoo. Will that, if they speed up, actually dissipate  
51 some noise and make it quieter, particularly if they  
52 are heading at you?  
53                   STS1 MCGIBONEY: Possibly, because it can --  
54 it may lift it up out of the water a little bit.  
55                   LT JOHNSON: It is going to plane the vessel  
56 a little bit.

1 STS1 MCGIBONEY: You may not be able to hear  
2 as much of the data that is coming in. Looking at  
3 this, if somebody is pointing at you, that is going to  
4 hide a lot of sound as well.

5 LT JOHNSON: Sure. If you -- and I know that  
6 I am asking you for a lot of approximate stuff here,  
7 and please understand that I recognize that. If you  
8 had, let's just say, a speed boat making -- what do  
9 they usually run at, 500 RPM? Are you going to be able  
10 to pick them up at the same range that you think that  
11 you can pick up a heavy merchant, maybe doing 10 knots  
12 with a heavier blade?

13 STS1 MCGIBONEY: No, sir, because he is going  
14 to sit a lot higher in the water. A bigger merchant is  
15 going to have a deeper draft, most times.

16 LT JOHNSON: Right. So the deeper draft is  
17 going to put him -- is going to transmit the sound, but  
18 coming at you -- and what I am getting at is it looks  
19 like, from the graphs there, that this guy was doing  
20 the slow speed, say, from 1230 to 1300. I guess my  
21 question is, if you look at the possibility that as a  
22 vessel coming at you speeds up, it actually becomes  
23 quieter due to a planing effect.

24 Do you know where I am going with that?

25 STS1 MCGIBONEY: Yes, sir.

26 LT JOHNSON: And you are the sonar guy. Is  
27 that possible, that they can get quieter, speeding up,  
28 coming at you?

29 STS1 MCGIBONEY: It is possible if they  
30 bringing it a little bit higher out of the water,  
31 because then you may get all the screw noises, not  
32 necessarily just engine noises.

33 LT JOHNSON: Is his engine going to run  
34 quieter? Is it the faster it goes, does it run  
35 quieter?

36 STS1 MCGIBONEY: No, it should run louder  
37 since you are bringing [inaudible]. You have more of  
38 the water, since the engine is usually sitting more on  
39 the bottom side of the boat. So he is going to be able  
40 to come up and put less of the hull, or the engine  
41 closer to the water. So it would be possible.

42 LT JOHNSON: So a faster boat, it is possible  
43 you might get a lesser engine noise.

44 STS1 MCGIBONEY: It is possible.

45 LT JOHNSON: I am just trying to figure out  
46 why, if this guy was closing you up, it could account  
47 for you not seeing a change in range in sonar. So, in  
48 my mind, I am sitting here, in my own uneducated mind  
49 as far as sonar, trying to think, how could a contact  
50 close you and get closer and not sound louder, and I am  
51 wondering if the increase in speed that is apparent  
52 here could somehow account for it.

53 STS1 MCGIBONEY: By looking and pointing at  
54 us could hide him. Not all of the signature, but  
55 probably a lot.

56 LT JOHNSON: I know this is an interview for



1 you, but I also would like to ask Lieutenant Hedrick or  
2 Commander Caccivio if this is possible.

3 LT HEDRICK: This is Lieutenant Hedrick.

4 Petty Officer McGiboney, in your experience,  
5 how reliable is SNR as an indication of a contact's  
6 range on the big scale? One of the most reliable, one  
7 of the least reliable, somewhere in between.

8 STS1 MCGIBONEY: It is probably in between  
9 because the sound is going to fluctuate the whole time  
10 you are receiving that path.

11 LT JOHNSON: You can actually -- don't you  
12 think that --

13 LT HEDRICK: Well, there is not going to be a  
14 lot of planing effect on 170-foot vessel, as they  
15 change speed.

16 PANEL MEMBER: Sure. I would agree with  
17 that.

18 LT HEDRICK: The phenomenon of the bow null  
19 is well known and documented, and that would be  
20 independent of the contact speed. It is just a  
21 function of his angle on the bow, in general.  
22 Although, you can say changes in SNR are due to  
23 something.

24 You can address them as far as changes in  
25 water mass, changes in the bottom, maybe some type of  
26 system change if an operator changes a parameter in his  
27 system, but in general, it is not a good indicator of  
28 range. You can track a contact to a wide range of  
29 ranges and have little or no SNR change, or have an SNR  
30 that does not -- it definitely does not change linearly  
31 with the range and is not a reliable indication. That  
32 says if it changes, it definitely would clue operators  
33 into, why did it change; did I just change something in  
34 how I am operating or how he is operating.

35 There are so many factors that go into it.  
36 That is part of the reason why it is not a great  
37 indicator of range. As soon as my ship speeds up, SNR  
38 changes. Does that mean the guy just got a lot farther  
39 away? No. So SNR is one of many factors, and usually  
40 it is one that cannot be used all by itself,  
41 independent of other analysis.

42 LT JOHNSON: This boat, this vessel obviously  
43 had a bulbous bow. We all know that now. Does nulling  
44 effect increase or decrease for speed, or is it totally  
45 independent of speed?

46 STS1 MCGIBONEY: I believe it is independent  
47 of speed.

48 LT JOHNSON: It is independent. So even if  
49 you are going faster, pushing more water out in front  
50 of you, it is not going to have more of a masking, the  
51 bow null is not going to be more pronounced, in your  
52 experience?

53 STS1 MCGIBONEY: Not that I am seeing. If  
54 you have got a contact pointing at you -- we haven't  
55 done any trainers for this one. I wouldn't think it  
56 has too much. I mean, even on a bow null, you are

1 knocking off most of the sound. I don't know what  
2 percentage of it would change.

3 LT JOHNSON: Did you do any adjustments to  
4 your equipment during your watch, or anything that  
5 might account for -- any tweaking?

6 STS1 MCGIBONEY: Not for any change in the  
7 system gains or settings, or anything like that. The  
8 only thing they had changed was the screens for looking  
9 at periscope depth and the time history part, which,  
10 that doesn't affect the process any.

11 LT JOHNSON: Sure. Do you have any opinions  
12 as to why we didn't get them louder when they got  
13 closer, or a higher SNR?

14 STS1 MCGIBONEY: The guy pointed at us the  
15 whole time, and it was [inaudible].

16 LT JOHNSON: Right.

17 STS1 MCGIBONEY: You are not going to get it  
18 that much.

19 LT JOHNSON: Okay. That is all I have.  
20 Thank you.

21 LTJG KUSANO: Lieutenant Kusano.  
22 Based on Lieutenant Johnson's questions, how  
23 does rough weather affect noise? I mean, if the ship  
24 is going up and down, and the hull comes out of the  
25 water, then obviously when it comes back down, there is  
26 going to be a lot of, I guess, air around it.  
27 Will that affect your ability to hear it?

28 STS1 MCGIBONEY: It can, but I mean, the way  
29 the process goes is just taking any data that I can to  
30 display that trace.

31 LTJG KUSANO: For instance, surface  
32 combatants, they have masker systems.

33 STS1 MCGIBONEY: Right.

34 LTJG KUSANO: How effective is that?

35 STS1 MCGIBONEY: You can still track them.  
36 So, pretty much, insignificant.

37 LT HEDRICK: Lieutenant Hedrick.  
38 If you are tracking a contact at Sea State 1,  
39 then all of a sudden, at Sea State 5, does that have  
40 any effect on your ability to track or your ability to  
41 glean data from your visual or audio information?

42 STS1 MCGIBONEY: That could change the  
43 ambient level of noise in the water for the surface-to-  
44 depth area because it is creating more noise, in that,  
45 the sea state is going to change, as in height. That  
46 could bring your ranges down as well because you may  
47 not see it because of that ambient noise being higher.

48 LT HEDRICK: So it is going to increase  
49 noise. So your SNR or signal strength of the contact  
50 could drop?

51 STS1 MCGIBONEY: It could drop.

52 LT HEDRICK: Okay. What about -- does that  
53 have any impact on the visual display at broadband?

54 STS1 MCGIBONEY: Not as bright of a trace.

55 LT HEDRICK: So the strength of the signal  
56 affects how clear the trace is on the display. These

1 traces we have talked about on the display, I don't  
2 think we have documented it. You gentlemen -- the NTSB  
3 folks will definitely see this in a trainer, is this,  
4 to say, a sharp, distinct line that is at one, and only  
5 one, bearing?  
6 STS1 MCGIBONEY: The system display for each,  
7 I will say a wide, or potential bearing at 6 degrees  
8 wide. When get a tracker, it is going to be over a  
9 group of bearings where if the system -- where it  
10 thinks it is at. So it is going to be kind of a broad  
11 trace. I don't know how many degrees wide. It is not  
12 going to be a -- it won't look --  
13 LT HEDRICK: It is not a sharp, distinct  
14 trace.  
15 STS1 MCGIBONEY: It is not a very thin --  
16 right. It would be kind of like using a very thin  
17 pencil to, kind of, maybe, using a felt tip.  
18 LT HEDRICK: Is it safe to say that the  
19 weaker the SNR is, the fuzzier and fainter that the  
20 trace is?  
21 STS1 MCGIBONEY: [Non-verbal response.]  
22 LT HEDRICK: Why not?  
23 STS1 MCGIBONEY: I wouldn't go -- because, I  
24 mean, if you get a really loud contact at a decent  
25 range, it can make it a little fuzzy. If it is out  
26 there a little ways, it is hard for the system to get  
27 it. It could present it a little fuzzy. It is not  
28 really indicative of how loud or how close it is. It  
29 is just --  
30 LT HEDRICK: I am going to stop the  
31 questioning, my questioning on this line, just because  
32 we could probably talk for 30 minutes and still not get  
33 as much information as you guys looking at a sonar  
34 stack for 90 seconds. We will just wait for that, and  
35 you will have to take that memory home with you.  
36 LT JOHNSON: Lieutenant Johnson.  
37 If you had a vessel and the sea state was  
38 such that the prop was coming out of the water, would  
39 that have an effect on that sonar, or your ability to  
40 track it?  
41 STS1 MCGIBONEY: It can, anytime it comes  
42 out. It depends on what the system is seeing as  
43 broadband.  
44 LT JOHNSON: Sure. Have you ever-- in your  
45 experience on the watch, have you ever heard airplanes  
46 in sonar?  
47 STS1 MCGIBONEY: Helicopters.  
48 LT JOHNSON: Helicopters? So you can hear,  
49 actually, some things in the atmosphere through the  
50 water.  
51 STS1 MCGIBONEY: Yes.  
52 LT JOHNSON: What would the effect of rain  
53 and rain squalls have on your ability, your S&Rs?  
54 STS1 MCGIBONEY: It would also raise the  
55 ambient level of the water, the noise level.  
56 LT JOHNSON: Which would give you a --

1 STS1 MCGIBONEY: A little bit lesser chance  
2 of detecting something in the area.

3 LT JOHNSON: Are you aware -- or, during your  
4 watch, did you detect any rain squalls in the area?  
5 Because I know you can probably detect them and hear  
6 them.

7 STS1 MCGIBONEY: I don't remember any rain.  
8 I remember biologics to the north, towards the east,  
9 fish, but I don't remember any -- just rain. If it is  
10 really, really heavy, that is going -- you are going to  
11 be able to hear that, obviously, better. As the  
12 weather is passing by, you are going to be see it on  
13 your broadband. You are going to hear other factors  
14 before you will hear the rain. You will hear the fish,  
15 you will hear the contacts that are out there, and that  
16 will kind of be in the background.

17 LT JOHNSON: Can you distinguish that? Can  
18 you distinguish rain when you hear it on passive sonar?

19 STS1 MCGIBONEY: Most of the time.

20 LT JOHNSON: It is a pretty distinctive  
21 sound?

22 STS1 MCGIBONEY: It is not necessarily  
23 distinctive sound. It is more the trace you get, and  
24 kind of lack the information that it provides. You are  
25 not going to hear it pitter-patter like you would out  
26 here in a parking lot. It is a little bit different.  
27 I don't think you would have any rain to display. You  
28 are not going to go, okay, that is rain.

29 LT HEDRICK: This is Lieutenant Hedrick.

30 Noise shows up visually, and then sometimes  
31 orally, just like, I mean, rain does, just like any  
32 other contact. A discriminator would be lack of any  
33 mechanical-related information, either visually,  
34 orally, or through other processing associated with  
35 that contact. It is very hard to 100 percent say, that  
36 is rain. So more often than that, you track a rain  
37 squall because you are not sure.

38 If you are asking me to eliminate everything  
39 else, no, not necessarily. Rain at 8- or 9,000 yards  
40 can look just like a contact.

41 STS1 MCGIBONEY: It is not going to move.

42 LT JOHNSON: Well, actually, I am not asking  
43 you to eliminate anything.

44 LT HEDRICK: I am just telling you,  
45 eliminating rain is very hard. You track a lot of rain  
46 squalls, typically, on a submarine because, as we have  
47 seen in this case, where we had several hours of watch  
48 where no screw blade data was available but those were  
49 actual mechanical contacts, well, a rain storm would  
50 look like that. A rain storm would look like a  
51 contact.

52 Typically, it doesn't move like other  
53 contacts do. So, over time, you might be able to do  
54 that, but you are not going to just say, oh, I don't  
55 hear mechanical data, therefore it is rain. We have  
56 seen where, very obviously, there are lots of times you

1 don't get mechanical data. It is a contact. So we  
2 track rain. It is not an easy call.

3 STS1 MCGIBONEY: When you can really  
4 [inaudible] on it being rain is, it gets a little bit  
5 closer to you. It will start breaking apart, whereas,  
6 a storm moves. There will be a harder section of rains  
7 in some places than others. That is when it will start  
8 to kind of dissipate or break.

9 LT JOHNSON: I mean, asking about the rain  
10 was a curiosity to know, since everything range-wise is  
11 derived -- we obviously have a range problem here.  
12 Since everything range-wise seems to be derived from an  
13 SNR, if rain raises the ambient noise level, then you  
14 are not going to see an appreciable increase in your  
15 SNRs as the contact closes you.

16 So that is where I am headed, is if we have a  
17 rainstorm that comes in, the contact could have been  
18 closing you but you would not have seen that, possibly.  
19 Maybe, maybe not. I don't know.

20 STS1 MCGIBONEY: There is a lot of things.

21 LT JOHNSON: Sure. You mentioned that there  
22 was no mechanical data on your screw blade. I was  
23 wondering why that is. I think that the watch, and you  
24 have the logs in front of you, I think the watch prior  
25 to yours, they were getting actual screw blade  
26 information.

27 STS1 MCGIBONEY: Not on the S12 or 13.

28 LT JOHNSON: Not on S12 or 13, but on other  
29 contacts? Is there anything in particular, or anything  
30 you know of that prevented the continuing screw blade -  
31 - your getting data?

32 STS1 MCGIBONEY: We didn't get anything early  
33 on him, and then once we started the angles and  
34 dangles, you are more focusing on watching for the  
35 dynamic changes by putting up an extra display. I  
36 mean, we have only got two stacks in there to really  
37 pull from. He did a couple of times. I don't know  
38 which contact.

39 LT JOHNSON: In your log that you have there,  
40 what is the longest range that you actually have screw  
41 blade data for? Do you know that?

42 STS1 MCGIBONEY: Range?

43 LT JOHNSON: Yes, your estimate range, or do  
44 you have that?

45 STS1 MCGIBONEY: I don't think I did --- I  
46 only wrote -- looking at the S-2, way back. I don't  
47 think they have any other ranges.

48 LT JOHNSON: Okay. I didn't know if you had  
49 ranges or not. I don't have anything else. Thank you  
50 very much.

51 MR. ROTH-ROFFY: I'm sorry, Petty Officer  
52 McGiboney, I missed -- you probably answered this  
53 already, but it might help to clear it up for me. When  
54 the XO came into the Sonar Room, what conversation did  
55 you have with him? Did he ask you anything or did you  
56 tell him anything?

1                   STS1 McGIBONEY: No. I don't really remember  
2 having a long conversation. I just remember he came in  
3 and he stood between me and Petty Officer Reyes. I  
4 don't remember --  
5                   MR. ROTH-ROFFY: You don't remember if he  
6 asked you about the contact situation and whether --  
7                   STS1 McGIBONEY: No.  
8                   MR. ROTH-ROFFY: Okay.  
9                   STS1 McGIBONEY: I don't think we had any  
10 full conversations.  
11                   MR. ROTH-ROFFY: All right. Any other  
12 questions for Petty Officer McGiboney?  
13                   [No response.]  
14                   MR. ROTH-ROFFY: There being no further  
15 questions for Petty Officer McGiboney, you are excused  
16 with our thanks. The time now is 13:23.  
17                   [End of interview.]  
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